

Work Order ID 70122

Friday, May 27, 2011 10:34:49 AM



Page 1

Item ID:	D4308-042	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Step, RH Crew					
Start Date:	6/2/2011	Start Qty:	2.00		Cust Item ID:	
Required Date:	6/3/2011	Req'd Qty:	2.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	11-05-27	Tooling:		Date:		Run	Start	
	QC:	Date:		SPC (Y/N):		Date:			Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
D4308	A								

100		0.00							
	Large Fab								
Large Fab	Memo	0.00							
Large Fab	1-Cut D4308-1 using D2622 extrusion as per Dwg D4308								
	2-Drill, c'sink one hole on top of step as per dwg								
	3-Deburr and bevel ends for welding								

11-05-28

2

110		0.00							
	QC6- Inspect dimensions to drawing								
QC	Memo	0.00							
Quality Control									

8 mos/30

(12)

120		0.00							
	Weld per dwg A/R Aluminum rod Batch: 114703								
Large Fab	Large Fab								
Large Fab	Memo	0.00							
Large Fab	1-Weld end cap (ONE END ONLY)								
	2-Grind end cap welds flush								
	3-weld lugs as per Dwg D4308								

11-05-31

2

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Work Order ID 70122

Friday, May 27, 2011 10:34:49 AM

Page 2

Item ID: D4308-042

Accept

Setup Start

Revision ID:

Stop

Item Name: Step, RH Crew

Start Date: 6/2/2011 Start Qty: 2.00

Cust Item ID:

Required Date: 6/3/2011 Req'd Qty: 2.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC9- Inspect visual per QSI004- Fusion Welds

0.00



QC

Memo

0.00

Quality Control

2

0

BE 1/05/31

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8 11/05/31

(42)

RH

150

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

XZRH

0

11 11/05/31

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Work Order ID 70122

Friday, May 27, 2011 10:34:49 AM



Page 3

Item ID: D4308-042

Accept



Setup Start



Revision ID:

Stop



Item Name: Step, RH Crew

Start Date: 6/2/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 6/3/2011 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

2 0 11-531

170

Weld per dwg A/R Aluminum rod Batch: 114703
Large Fab

0.00



Large Fab

Memo

0.00

Large Fab

1-Inspect for foreign object per QSI 024
2-Weld Remainig end cap as per Dwg D4308
3-Grind end cap weld flush as per dwg D2841
4- install rivert as per dwg

11-06-01

2 0

180

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

8 11-06-01

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries



Work Order ID 70122


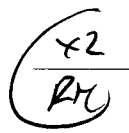

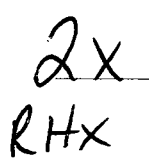


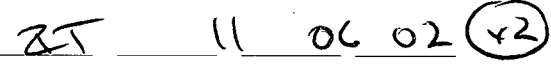
Friday, May 27, 2011 10:34:49 AM



Page 4

Item ID: D4308-042 Accept  Setup Start 
Revision ID: Stop 
Item Name: Step, RH Crew
Start Date: 6/2/2011 Start Qty: 2.00  Cust Item ID:
Required Date: 6/3/2011 Req'd Qty: 2.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							
200  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00							
210  SprayPaint Spray Painting	Spray Painting per QSI005 4.2 Memo ***BLUE*** primer 117319 paint 115985 clear 117106	0.00 0.00							

PTO

W/O: 70122		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11-06-03	211	QU4			11-06-03	2	 ASPER	 H.O.

Part No: D4308-042 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Work Order ID 70122

Friday, May 27, 2011 10:34:49 AM



Page 5

Item ID: D4308-042

Accept



Setup Start



Revision ID:

Stop



Item Name: Step, RH Crew

Start Date: 6/2/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 6/3/2011 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
215	Wing Walk as per dwg QSI005 4.4 Batch	117863				2	BR	11-6-0	
	HandFinish	0.00							
	Hand Finishing								
220	QC3- Inspect Part Finish	0.00							
	QC	0.00							
	Quality Control								
230	Identify as per dwg & Stock Location: _____	0.00							
	Packaging	0.00							
	Packaging								

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries



Work Order ID 70122

Friday, May 27, 2011 10:34:50 AM



Page 6

Item ID: D4308-042 Accept  Setup Start 
Revision ID:
Item Name: Step, RH Crew Stop 
Start Date: 6/2/2011 Start Qty: 2.00  Cust Item ID:
Required Date: 6/3/2011 Req'd Qty: 2.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

240

QC21- Final Inspection - Work Order Release

0.00

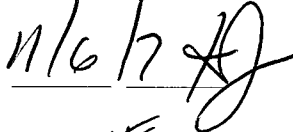


QC

Memo

0.00

Quality Control

11/6/11 
MF
11-06-06

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, May 27, 2011 10:34:56 AM

Page 1

Work Order ID: 70122

Parent Item: D4308-042

Parent Item Name: Step, RH Crew



Start Date: 6/2/2011

Required Date: 6/3/2011

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A 11.01.07 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured No

Each

64.0000

0.1



Step Extrusion



11.05.28

Location

Loc Qty

Loc Code

HALL

6

64409

6

WA

58

46910

2

66970

56

0.1

D2734

Manufactured No

120

Each

68.0000

1

2



Step End Plate



11.05.30

Location

Loc Qty

Loc Code

WA

45

69537

45

WA015

23

66143

23

2

D3458-1

Manufactured No

120

Each

31.0000

1

2



Step Mounting Plate



11.05.30

Location

Loc Qty

Loc Code

WA018

31

63075

31

2

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, May 27, 2011 10:34:56 AM

Page 2

Work Order ID: 70122

Parent Item: D4308-042

Parent Item Name: Step, RH Crew

Start Date: 6/2/2011

Required Date: 6/3/2011

Start Qty: 2.00

Required Qty: 2.00

D3458-3

Manufactured No

120

Each

38.0000

1

2



Step Mounting Plate



211.05.30

Location

Loc Qty

Loc Code

WA018

38

63076

38

2

D2734

Manufactured No

170

Each

68.0000

1

2



Step End Plate



211.06.01

Location

Loc Qty

Loc Code

WA

45

69537

45

WA015

23

66143

23

2

11520601A04W2

3114945

2 211.05.28

Friday, May 27, 2011 10:34:57 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

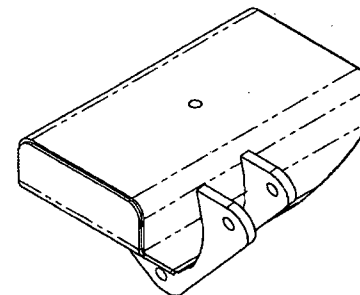
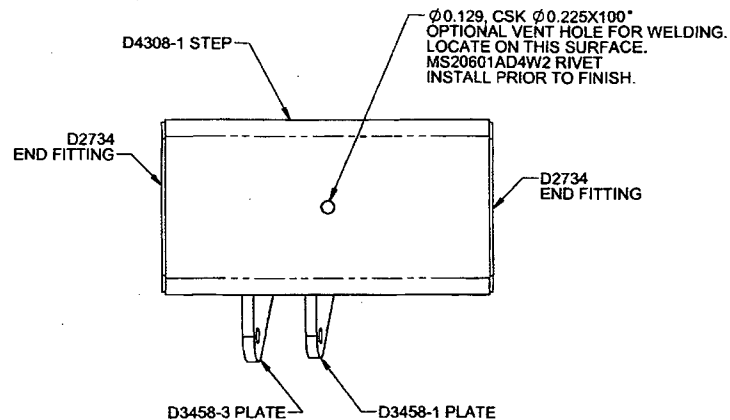
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

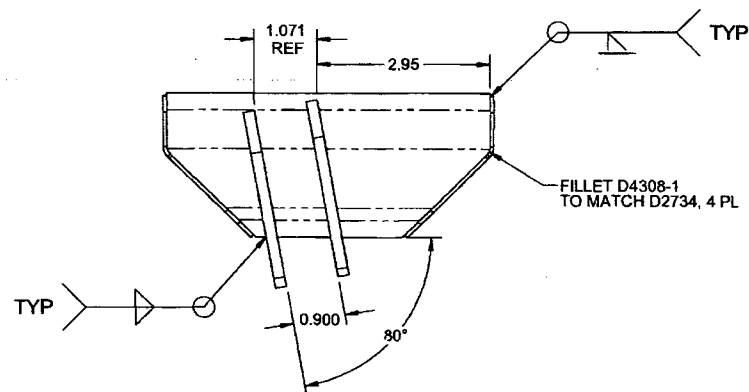
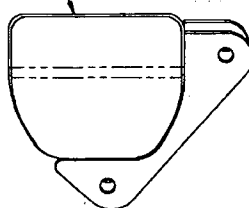
NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY -041	P/N	DESCRIPTION
1	X	D4308-041	STEP, LH CREW
2	1	D4308-1	STEP
3	2	D2734	END PLATE
4	1	D3458-1	PLATE
5	1	D3458-3	PLATE
6	1	MS20601AD4W2	RIVET (OPTIONAL)



2 APPLY BLACK
ANTI-SKID ON TOP
SURFACE TO BOTTOM
OF TOP RADIUS



D4308-041 STEP, LH CREW

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: P/N & B/N PER DART QSI 044 6.6 (REMOVABLE TAG)
- 7) WEIGHT: 0.47 lb
- 8) WELDING: PER DART QSI 004

A	NEW ISSUE	CP	10.12.17
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.12.17		

RELEASED
2011-05-26
JMP

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4308** REV. A
SHEET 1 OF 3
TITLE **STEP, CREW** SCALE NTS

COPYRIGHT © 2010 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

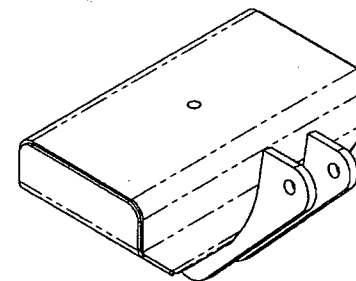
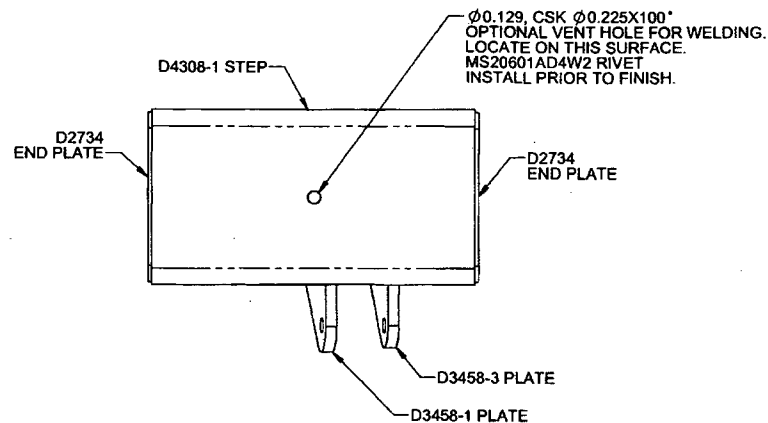
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

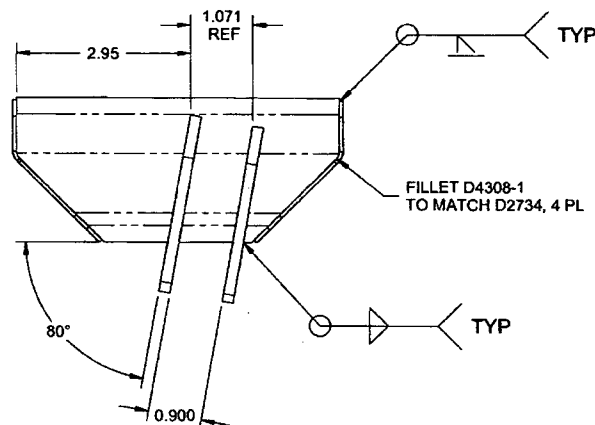
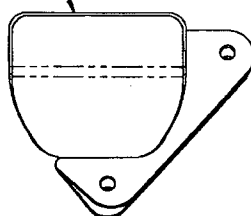
NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY -042	P/N	DESCRIPTION
1	X	D4308-042	STEP, RH CREW
2	1	D4308-1	STEP
3	2	D2734	END PLATE
4	1	D3458-1	PLATE
5	1	D3458-3	PLATE
6	1	MS20601AD4W2	RIVET (OPTIONAL)









2 APPLY BLACK ANTI-SKID ON TOP SURFACE TO BOTTOM OF TOP RADIUS



D4308-042 STEP, RH CREW

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: P/N & B/N PER DART QSI 044 6.6 (REMOVABLE TAG)
- 7) WEIGHT: 0.47 lbs
- 8) WELDING: PER DART QSI 004

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV.
MFG. APPR.		D4308	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		STEP, CREW	NTS
DATE	10.12.17	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PROPRIETARY AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

RELEASED
2011-05-24

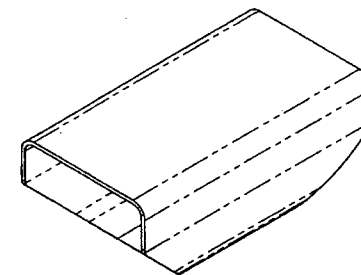
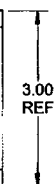
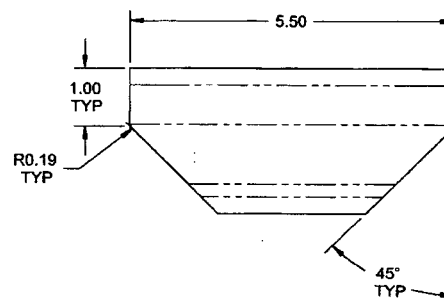
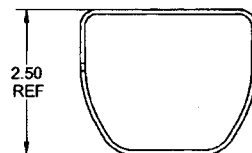
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries



D4308-1 STEP

NOTES:

- 1) MATERIAL: MAKE FROM D2622 EXTRUSION
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.33 lbs

RELEASED
2011-05-20
JND

DESIGN	00	DART AEROSPACE LTD	
DRAWN	00	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ASS	DRAWING NO.	REV. A
MFG. APPR.	MD	D4308	SHEET 3 OF 3
APPROVED	MD	TITLE	SCALE
DE APPR.	MD	STEP, CREW	NTS
DATE	10.12.17	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries